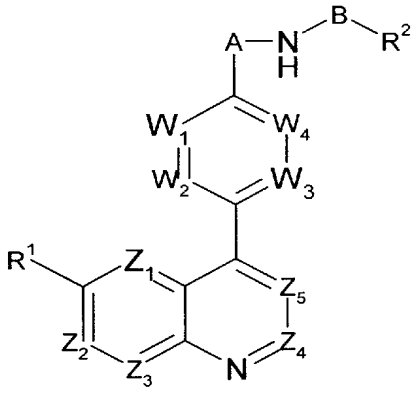
Amendments to the claims

Listing of claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A compound of formula (I):



(I)

wherein:

one of Z_1, Z_2, Z_3, Z_4 and Z_5 is N, one is CR^{1a} and the remainder are ~~CH, or~~ CH, or one or two of Z_1, Z_2, Z_3, Z_4 and Z_5 are independently CR^{1a} and the remainder are CH;

R^1 and R^{1a} are independently hydrogen; hydroxy; (C_{1-6})alkoxy unsubstituted or substituted by (C_{1-6})alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two (C_{1-6})alkyl, acyl or (C_{1-6})alkylsulphonyl groups, $CONH_2$, hydroxy, (C_{1-6})alkylthio, heterocyclylthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C_{1-6})alkylsulphonyloxy; (C_{1-6})alkoxy-substituted(C_{1-6})alkyl; halogen; (C_{1-6})alkyl; (C_{1-6})alkylthio; trifluoromethyl; trifluoromethoxy; nitro; cyano; azido; acyl; acyloxy; acylthio; (C_{1-6})alkylsulphonyl; (C_{1-6})alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C_{1-6})alkyl, acyl or (C_{1-6})alkylsulphonyl groups;

provided that when Z_1, Z_2, Z_3, Z_4 and Z_5 are CR^{1a} or CH, then R^1 is not hydrogen;

W_1, W_2, W_3 and W_4 are each independently selected from N or CR^3;

each R^3 is independently selected from:
hydrogen; hydroxy; halogen; trifluoromethyl; trifluoromethoxy; cyano; nitro; azido; acyl; acyloxy; acylthio; amino, mono- and di-(C_{1-6})alkylamino; and substituted and unsubstituted (C_{1-6})alkoxy, (C_{1-6})alkyl, (C_{3-7})cycloalkyl, aminocarbonyl, (C_{1-6})alkylthio, (C_{1-6})alkylsulphonyl, and (C_{1-6})alkylsulphoxide;

A is $(CRR)_n$;

B is $(CRR)_m$, C=O, or SO_2;

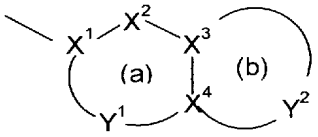
n is 1 or 2;

m is 1 or 2;

provided that when n is 1, m is 2; when n is 2, m is 1; and when B is C=O or SO_2 then n is 2;

each R is independently selected from
hydrogen; halogen; trifluoromethyl; trifluoromethoxy; cyano; nitro; azido; acyl; acyloxy; acylthio; amino, mono- and di-(C_{1-6})alkylamino; and substituted and unsubstituted (C_{1-6})alkoxy, (C_{1-6})alkyl, (C_{3-7})cycloalkyl, aminocarbonyl, (C_{1-6})alkylthio, (C_{1-6})alkylsulphonyl, and (C_{1-6})alkylsulphoxide;

R^2 is a substituted or unsubstituted bicyclic heterocyclic ring system of formula (A):



(A)

containing up to four heteroatoms in each ring in which

ring (a) is substituted or unsubstituted pyridine and ring (b) is substituted or unsubstituted non-aromatic;

X^1 is C;

X^2 is N or CR^4;

X^3 and X^4 are C;

Y^1 is a 2 atom linker group each atom of which is independently selected from N and CR^4;

Y^2 is a 4 atom linker group having S bonded to X^4 and NHCO bonded via N to X^3 in which the other atom is CR^4R^5; and

each R^4 and R^5 is independently selected from: hydrogen; (C_{1-4})alkylthio; halo; carboxy(C_{1-4})alkyl; halo(C_{1-4})alkoxy; halo(C_{1-4})alkyl; (C_{1-4})alkyl; ~~(C_{2-4})alkenyl~~; (C_{1-4})alkoxycarbonyl; formyl; (C_{1-4})alkylcarbonyl; (C_{2-4})alkenyloxycarbonyl; (C_{2-4})alkenylcarbonyl; (C_{1-4})alkylcarbonyloxy; (C_{1-4})alkoxycarbonyl(C_{1-4})alkyl; hydroxy; hydroxy(C_{1-4})alkyl; mercapto(C_{1-4})alkyl; (C_{1-4})alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl **[[is]]** optionally substituted by (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyl, (C_{2-4})alkenyloxycarbonyl, (C_{2-4})alkenylcarbonyl, (C_{1-4})alkyl or (C_{2-4})alkenyl and optionally further substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl; (C_{2-6})alkenyl;
(C_{1-4})alkylsulphonyl; (C_{2-4})alkenylsulphonyl; **[[or]]** aminosulphonyl wherein the amino group is optionally mono- or di-substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl; aryl; aryl(C_{1-4})alkyl; and aryl(C_{1-4})alkoxy; or R^4 and R^5 may together represent oxo; ~~and~~

~~each R^6 is independently hydrogen; trifluoromethyl; (C_{1-4})alkyl unsubstituted or substituted by hydroxy, (C_{1-6})alkoxy, (C_{1-6})alkylthio, halo or trifluoromethyl; (C_{2-4})alkenyl; aryl; aryl(C_{1-4})alkyl; arylcarbonyl; heteroarylcarbonyl; (C_{1-4})alkoxycarbonyl; (C_{1-4})alkylcarbonyl; formyl; (C_{1-6})alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyl, (C_{2-4})alkenyloxycarbonyl, (C_{2-4})alkenylcarbonyl, (C_{1-4})alkyl or (C_{2-4})alkenyl and optionally further substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl;~~

wherein the term acyl means a formyl or a (C_{1-6})alkylcarbonyl group;

or a pharmaceutically acceptable salt thereof.

2. (Currently amended) A compound according to claim 1 wherein Z_5 is CH or N, Z_3 is CH or CF and Z_1, Z_2 and Z_4 are each CH~~, or Z_1 is N, Z_3 is CH or CF and Z_2, Z_4 and Z_5 are each CH~~.

3. (Original) A compound according to claim 1 wherein R^1 is methoxy and R^{1a} is H or when Z_3 is CR^{1a} it may be C-F.

4. (Currently amended) A compound according to claim 1 wherein W_1-W_4 are independently CR^3~~:~~

~~a) W_1-W_4 are independently CR^3;~~

~~b) W_1, W_3 and W_4 are N and W_2 is CR^3;~~

~~c) W_2 is N and W_1, W_3 and W_4 are independently CR^3;~~

~~d) W_3 is N and W_1, W_2 and W_4 are independently CR^3; or~~

~~e) W_4 is N and W_1-W_3 are independently CR^3~~.

5. (Original) A compound according to claim 1 wherein R^3 is independently selected from hydrogen, substituted and unsubstituted (C_{1-6})alkoxy, and NH_2.

6. (Original) A compound according to claim 1 wherein R is independently selected from hydrogen, substituted and unsubstituted (C_{1-6})alkyl, $CONH_2$, COOH, hydroxy, halogen, and substituted and unsubstituted (C_{1-6})alkoxy.

7. Canceled.

8. (Previously presented) A compound according to claim 1 wherein R^2 is selected from 4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one-6-yl and 1*H*-pyrido[3,2-*b*][1,4]thiazin-2-one-7-yl.

9. (Currently amended) A compound according to claim 1 which is:

6-({2-[4-(6-Methoxy-[1,5]naphthyridin-4-yl)phenyl]ethylamino}methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;

7-({2-[4-(6-Methoxy-[1,5]naphthyridin-4-yl)phenyl]ethylamino}methyl)-1*H*-pyrido[3,2-*b*][1,4]thiazin-2-one;

6-({2-[4-(6,8-difluoroquinolin-4-yl)phenyl]ethylamino}methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;

6-({2-[4-(8-Fluoro-6-methoxyquinolin-4-yl)phenyl]ethylamino}methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;

6-({2-[6-(6-methoxy-[1,5]naphthyridin-4-yl)pyridin-3-yl]ethylamino}methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;

6-({2-[5-(6-methoxy-[1,5]naphthyridin-4-yl)pyridin-2-yl]ethylamino}methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;

N-(2-{6-[6-(methyloxy)-1,5-naphthyridin-4-yl]-3-pyridinyl}ethyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide; ~~and~~ or

N-(2-{5-[6-(methyloxy)-1,5-naphthyridin-4-yl]-2-pyridinyl}ethyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;

or a pharmaceutically acceptable salt thereof.

10. (Original) A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

11. (Currently amended) A method of treating bacterial infections due to an organism selected from Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pneumoniae, Streptococcus pyogenes, Enterococcus faecalis, Enterococcus faecium, Haemophilus influenzae, E. coli, and Moraxella catarrhalis in mammals which comprises the administration to a mammal in need thereof an effective amount of a compound according to claim 1.

12. (Previously presented) A compound according to claim 1 wherein X^2 is N and Y^1 is a 2 atom linker group each atom of which is independently CR^4.

13. (New) A method according to claim 11 wherein the mammal is a human.

14. (New) A compound according to claim 1 wherein Z_1 is N, Z_3 is CH or CF and Z_2, Z_4 and Z_5 are each CH.

15. (New) A compound according to claim 1 wherein W_1, W_3 and W_4 are N and W_2 is CR^3.

16. (New) A compound according to claim 1 wherein W_2 is N and W_1, W_3 and W_4 are independently CR^3.

17. (New) A compound according to claim 1 wherein W_3 is N and W_1, W_2 and W_4 are independently CR^3.

18. (New) A compound according to claim 1 wherein W_4 is N and W_1-W_3 are independently CR^3.

19. (New) A compound according to claim 1 wherein R^4 is hydrogen, fluorine or nitro and R^5 is hydrogen.

20. (New) A compound according to claim 1 wherein R is hydrogen.

21. (New) A compound according to claim 1 wherein R^3 is hydrogen.